



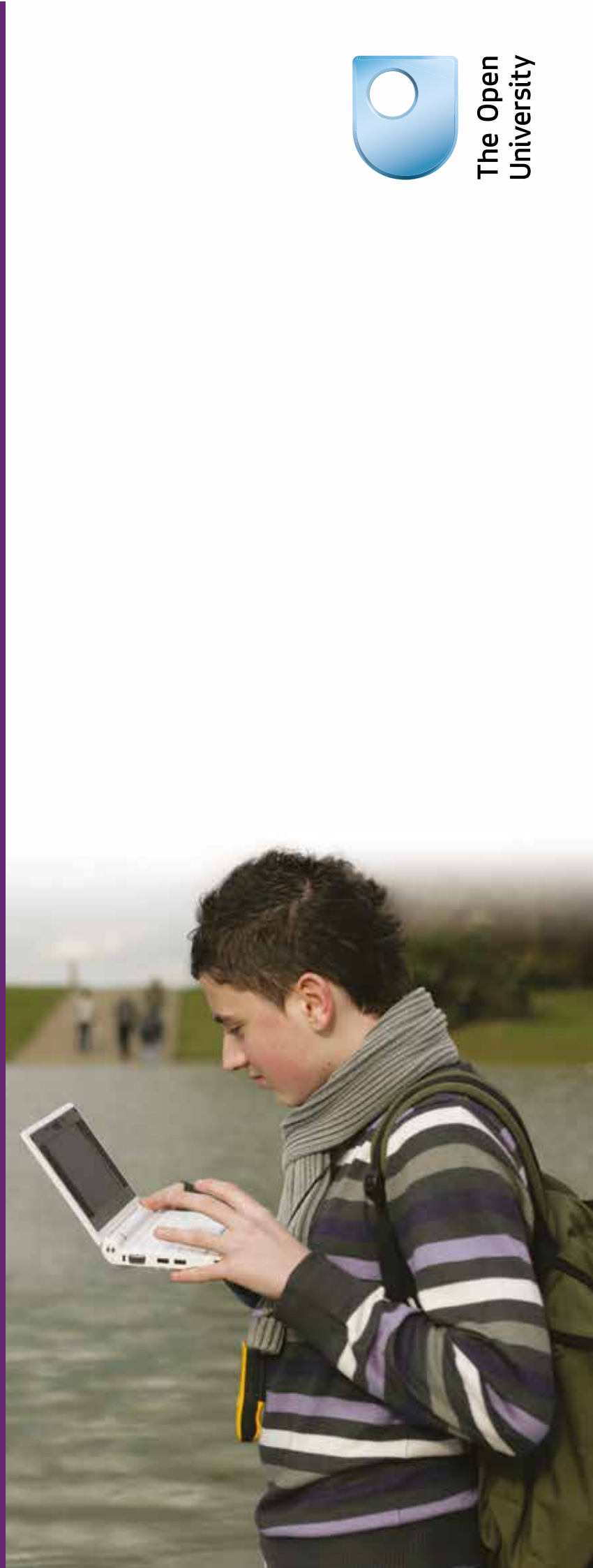
The Open
University

Innovating Pedagogy 2014

Exploring new forms
of teaching, learning
and assessment, to
guide educators and
policy makers

Mike Sharples, Anne Adams,
Rebecca Ferguson, Mark Gaved,
Patrick McAndrew, Bart Rienties,
Martin Weller, Denise Whitelock

Open University
Innovation Report 3



Flipped classroom

Blending learning inside and outside the classroom

Potential impact: high

Timescale: medium (2–5 years)

Flipped learning is an attempt to make best use of the learning benefits of online and face-to-face teaching. Direct teaching is taken out of the school or college classroom and put online so that students learn at home through instructional videos and presentations. The teacher may have created these or, more typically, they are produced by a company such as Khan Academy – a not-for-profit organisation that specialises in making short explanatory videos available for free access on the web. Then the classroom becomes a space for dynamic, interactive learning where the teacher guides students to apply concepts they have learned online and engage creatively with the subject matter through group work, discussion, and peer feedback.

Approaches

The flipped learning approach has two elements to consider: the direct instruction part at home and the interactive face-to-face element in the classroom. The home element does not have to consist of short videos, – textbooks, software or other resources could work as well – but video tends to be the dominant format.

The success of flipped learning depends on how the interactive classroom element is constructed. Some teachers have adopted peer mentoring, with students teaching each other, others have used group projects to explore the concepts learned at home. In some versions, the face-to-face element is used for debate and discussion. The classroom environment is often set up explicitly to reflect and encourage this shift towards collaboration and group work.

The flipped approach is beginning to spread beyond classrooms, so that conferences and learning in the workplace can be flipped. In a flipped conference, attendees typically view selected videos, articles, and case studies online, then meet in workshops to discuss the pre-conference resources and share personal experiences.



Poster for the Flipcon14 flipped learning conference. Image courtesy of the Flipped Learning Network.

“ the classroom becomes a space for dynamic, interactive learning where the teacher guides students to apply concepts they have learned online ”

Impact

Although the approach has been gaining currency, direct evidence of improvement in grades is limited to a few case studies. For example, a lecturer at University of Washington reduced the failure rate of his students from 17% to 4%, and increased the number of students attaining A grades from 14% to 24%. At the University of British Columbia, a controlled study found that the flipped students increased attendance by 20% and engagement by 40% and their scores were, on average, more than double those of students in a control group.

Surveys have indicated that teachers who flip are enthusiastic, with 96% saying they would recommend it, 71% reporting an increase in student grades and 85% an increase in student engagement and classroom participation.

Criticisms

Flipped learning shifts the workload of learning to the home, so that the bedroom or living room becomes a place of study and school encroaches on the social lives of students. Homework has long been a part of school and university education, but flipped learning demands a home environment where students are equipped with multimedia computers and must focus on watching videos and taking notes, rather than reading books or

writing essays. The burden of learning shifts towards the student, but flipped learning pioneer Jon Bergmann emphasises the value of teachers in facilitating learning rather than delivering content, refuting the notion that in a flipped class the teacher becomes redundant.

Use of video as the prime means of direct instruction has resulted in an emphasis on the effectiveness of video production and delivery, with the teacher or school selecting videos rather than considering the broader range of direct teaching methods in a traditional classroom. As with any new method of teaching, there is currently a novelty effect from the new medium that may not persist as this approach becomes more routine.

Conclusions

Although there may be hype around the term flipped learning, it is a useful way to consider effective use of environments and tools. If a teacher is repeatedly explaining basic concepts that could be better covered via online instruction, it makes sense to flip and apply a more engaging style for the face-to-face element. Open education resources and MOOCs now provide a range of good quality and freely available online resources that suit different learners. With flipped learning, the classroom becomes the place to share, discuss and explore these materials, guided by a teacher.

Resources

University of Washington study, *Flipped Learning in Higher Education*:

<http://www.flippedlearning.org/cms/lib07/VA01923112/Centricity/Domain/41/HigherEdWhitePaper%20FINAL.pdf>

University of British Columbia study:

Deslauriers, L., Schelew, E. & Wieman, C. (2011). Improved Learning in a Large-Enrollment Physics Class. *Science*, 13 May 2011, 332 (6031), 862-864.

Flipped learning survey of 2,358 educators:

<http://flippedlearning.org/survey>

Survey of 109 teachers using, creating and sharing online resources in a flipped classroom:

http://www.flippedlearning.org/cms/lib07/VA01923112/Centricity/Domain/41/OERRH_FLN%20Infographic.pdf

What is flipped learning?

Flipped Learning Network (FLN). (2014) The Four Pillars of F-L-I-P™

http://www.flippedlearning.org/cms/lib07/VA01923112/Centricity/Domain/41/FLIP_handout_FNL_Web.pdf

Flipped learning:

Rees, J. (2014) *The flipped classroom is decadent and depraved*. Blog posting, 5 May 2007.

Accessed online, 14 October, 2014, at

<http://moreorlessbunk.wordpress.com/2014/05/05/the-flipped-classroom-is-decadent-and-depraved/>

Innovating Pedagogy 2014

Exploring new forms
of teaching, learning
and assessment, to
guide educators and
policy makers

Open University
Innovation Report 3



ISBN 978-1-4730-0335-4



9 781473 003354